

How to Have the Best Producing Winter Vegetable Garden

The first step in starting the best producing winter vegetable garden for your location is finding out where you can grow vegetables during the winter months. Gardeners in northern climates generally have the most success with the use of cold frames or greenhouses to extend the season. To get the best results with your winter vegetables, you may need to plant your vegetables on the south side of a building where they will not only receive more sunlight, but also some protection from winter winds.

Timing is critical when you are planning your winter vegetable garden. It is important to know the first average frost date for your location. Once you know when to expect your first hard frost, you can then determine how long it takes for your chosen vegetables to mature. Typically, you will find this information on the back of your seed packet. If you are purchasing seedlings, check for a tag that tells you the days to maturity for that variety of plant. If the vegetable you have chosen says that it takes 90 days to maturity, simply calculate the date that would be 90 days before the first hard frost in your location to give your last planting date. This can be extended a bit if you live in a warmer microclimate, such as by the coast, or if you grow under cover (polytunnel, cloches, and greenhouse).

There are certain vegetables that are best suited to a winter vegetable garden.

90 Days to Maturity

- Beet
- Carrot
- Parsnip
- Globe onion
- Brussels sprouts
- Cabbage
- Cauliflower

60 Days to Maturity

- Early carrot
- Leek
- Turnip
- Kohlrabi
- Early cabbage
- Swiss chard

30 Days to Maturity

- Radish
- Leaf lettuce
- Spinach

Some of these vegetables, like parsnips and Brussels sprouts, actually have a better flavour if allowed to be touched by a light frost. Root vegetables can be harvested very late into the winter if they are protected by heavy mulch, such as straw.

Extend the Season

Cloches

You can extend your growing season by using some simple tools of the trade. Cloches are a great example. These portable, mini-greenhouses fit over an individual plant to keep it warm and protect it from the harsh elements. Keep in mind that on sunny days you will need to open it up and allow some of the heat to escape.

You can make one easily by making an arch with some half inch PVC pipe that is long enough to reach from one side of your garden spot to the other, and cover with some clear plastic. You will need to take care in securing the plastic to ensure that it will withstand any winter winds.

Raised Beds

Raised beds also can help to extend your growing season. The soil in a raised bed is warmer, especially if you use old tires to build your raised bed. The black tires will absorb the sun's heat, allowing vegetables to survive longer in the winter as well as being a great way to start early in the spring. It is important to note, some do not like to use tires to plant vegetables out of concern for chemicals seeping into the soil. Some studies say the amount is negligible. You will need to do the research and decide for yourself if this is a good option for you.

Greenhouses and Polytunnels

Here are some of the ways you can successfully grow crops all year round in your greenhouse or polytunnel.

- **Protecting From Frost**

If you want to grow crops all year around in your polytunnel or greenhouse you'll need to take measures to protect your plants from frost. Even half hardy plants left to overwinter in an unheated greenhouse may still be susceptible to frost damage. There are a few options you can choose from to protect from frost in your greenhouse; firstly, you can insulate the greenhouse with clear bubble wrap. This not only insulates the greenhouse glass and helps to trap heat, but also allows light to filter in, which is especially important as the autumn and winter nights draw in. Some people opt for greenhouse heaters, but these will add to the cost, and carbon footprint of your growing. You may also choose to give plants in your polytunnel or greenhouse additional protection, using fleece, or a clear plastic cover.

- **What Can I Grow All Year in My Greenhouse?**

Remember you'll need to opt for half-hardy and hardy varieties of fruit and vegetables to grow through the winter. In early winter, you can already start thinking ahead to next season by planting early carrots. Rather than growing in pots or straight into the ground, try growing them in grow bags that have been used during the previous growing season. If you're after continuous cropping of carrots, you can sow another row of carrots around mid-winter. Early to mid winter is also a great time to get your module seed trays out and start sowing a variety of salads and leaves – little gem lettuces, Winter Density or Bubbles lettuce are all potentials.

References

http://garden.lovetoknow.com/wiki/Best_Producing_Winter_Vegetable_Garden

<http://www.greenhousegrowing.co.uk/growing-crops-year-round-your-greenhouse.html>

Notes on Polytunnels session with Maggie Sutherland

Why choose a Polytunnel?

- Extend the season
- Over-wintering crops
- Grow crops that can't grow outside
- More economical to purchase than a greenhouse
- Better retention of heat than a greenhouse
- Less weather damage (i.e. no broken panes of glass)
- Multi-cropping – e.g. toms in soil from May to October, then cabbage Oct – following spring, all in the same ground
- Propagation
- Avoids pests e.g. flea beetle on brassica salads

Buying a polytunnel

There are lots of options to consider for your polytunnel, from the size, to the style. Being aware of factors for where you should site it should help identify where in your garden you could put one up.

Sizes

Minimum sizes about 6 x 8 ft - £220 approximately - if you have the space, and funds, aim to go larger than this. A 3m x 6m polytunnel would be big enough to grow food for two people, and a 5m x 10m can feed a family of six. The widest size you can get is 10 meters. The recommended hoop spacing here in north of Scotland is 5 ft, whereas further south in the UK 6 feet would be fine. This relates to the winter gales that we experience here.

Covers

There are different types of cover available, including clear, and thermal anti fog. This is treated so condensation doesn't drop down on crops, which is good for reducing risk of fungal infections, or blemishes (e.g. tomato leaves).

Polytunnel covers usually are guaranteed for 5 years, and can last for 5 to 10 years. They do require cleaning yearly (inside and outside), to help keep them in optimal condition for letting light in, and for hygiene and reducing risk of infection.

Crop bars

Crop bars are an option to consider. These are useful for supports for taller plants and can strengthen the structure, but they will add to your costs.

Base rail or dig in

There are different options for attaching the plastic cover to the frame. Generally it is cheaper to buy a dig in style, as there are extra materials required for the base rail. The base rail can give a neat, tight cover, and is easier to replace.

Things to Consider

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- Site – not too much shade, some shelter so not too exposed
- Proximity – you don't want to have a long way to go to get to your tunnel
- Growing styles – direct in to the soil / raised beds (can harbour slugs) think about your drainage when deciding
- Services – water & electricity.
- Ventilation – doors / side vents. Good ventilation is important to stop build up of pest and diseases, and fungal problems related to dampness. Open the doors up in the summer time. If there is a chance of frost, make sure they are closed.
- Winter sun. Sun goes from east to west, so you want to position your tunnel with the length facing south, to maximise sun.



Polytunnel in early summer

How to Construct Your Tunnel

- Foundations need to be put in for your hoops
- Ridge purlins (if you have a larger tunnel and wish the extra support along the ridge)
- Timber door frame & door to be constructed for each end
- Unroll plastic cover. Start at the centre bay, fit and work the plastic out. There are some good videos of this online, so it is worth a look.
- Fix the cover temporarily at the door frame.
- Fix the plastic cover properly – again starting in the centre bay and working out to the ends.
- Finish off the cover at the door frame, working pleats/ folds into the plastic around the door frame.



Covering the Polyntunnel at Culbokie Community Garden

Propagation

Tomatoes need a longer growing season than other common crops, so start these off in February. Maggie Sutherland recommends a heated propagator, with temps of 21 – 25 degrees C. They will also need light, so that the seedlings don't become "leggy".

Sow cucumbers later – they don't need such a long season, and can wait till it warms up slightly.

You can buy or build your own propagator, using polystyrene to help insulate, and sand then a soil warming cable, then a further covering of coarse sand.

Using a propagator and growing in a tunnel, you can have kohlrabi and spring unions ready for May, as well as snowball turnips and radishes. Dwarf peas can be ready even sooner.

Have benches or tables to keep plants and seedlings off the ground where they could be frost damaged.

Salad Leaves & rotations

Salad leaves can give a quick crop, but remember the plant families to make sure you get a good rotation in your tunnel.

Brassicas: rocket, mizuna, mibuna, mustard, landcress, Chinese cabbage, pak choi
Non – brassica salad: lettuce, chicory, corn salad, sorrel, spinach, claytonia, leaf Amaranth

Maggie Sutherland uses a 7 year rotation.

Ground Cover

Matting – keeps soil warm and moist

Can be reused – same crop each year, if you make holes for planting through at the right spacing, just move it to the next site for the same crop.

Maggie tip is to carefully burn holes, rather than cutting to avoid fraying or over-large holes.

Irrigation

Tomatoes, fair better with water direct to the soil, rather than sprayed so that it goes on the leaves. A drip irrigation system works well for tomatoes, therefore. They will need plenty of feeding, such as comfrey and wood ash.

Other irrigation options

- Overhead
- Drip
- Sprinklers
- Misty spray
- Side spray
- Hose
- Watering can

All but the last two options can be operated along with a timer for automated watering. The misty spray and side spray can be moved around.

Maggie struggles with bell peppers, but has had success with sweet long pointy peppers. Prolific cropping, seeds from Organic Gardening catalogue.

Fertility, pest & disease control

As with your outdoor crops, you will need to take steps to keep your soil fertile, and to minimise risk of pest and disease occurring.

- Farmyard manure
- Home made compost
- Comfrey feeds
- Garden centre products
- Seaweed feeds (e.g. maxi crop.
- Complimentary planting

What to Grow in Your Polytunnel

- Tomatoes and cucumbers will do well. For cucumbers look for “midi” varieties – prolific and sweet. 4 – 5 fruits per plant each week in season
- Tagetes (marigold family) are grown in the tunnel as part of companion planting to offer some protection against white fly.
- Salad crops
- Strawberries
- French climbing beans suit polytunnel e.g. blue lake (purple one black...)neckergold – all organic varieties
- Barlotti beans – two plants per support cane
- Squashes – “Uchiki Kuri” - small winter squash, with onion like shape, orange and tasty and “little gem”– light green, nice to stuff.
- Maggie has given up on growing aubergines commercially, as the crops are never great here.